

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Shi et al.

Docket No.: PF398P2D1

Application No.: 10/645,702

Confirmation No.: 9298

Filed: August 22, 2003

Art Unit: 1646

For: Interleukin 17 Receptor-Like Protein

Examiner: Jiang, Dong

**REQUEST FOR CORRECTED PUBLICATION UNDER 37 C.F.R. § 1.221(b)
DUE TO MATERIAL OFFICE MISTAKE**

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Sir:

Applicants respectfully request a corrected publication of the above-listed application pursuant to 37 C.F.R. § 1.221(b) due to a material mistake made by the Office. In particular, claim 12 and claim 14 each contain a material typographical error. In line 5 of claim 12, "(j)" should be replaced with "(j)" and in line 7 of claim 14, "Thr-10" should be replaced with "Thr-110". Additionally, one aspect of the priority claim is missing. At line 5 of column two of the cover page of the US 2004/0115698 publication, after "now Patent No. 6,635,443", ", and which is a continuation-in-part of PCT/US98/19121 filed Sep. 16, 1998" should be inserted. For your convenience a marked up copy of the cover page 114 of the description with the requested corrections noted in red are transmitted herewith.

The above mistake is apparent from the Office records, as the claim 12 and 14 as presented in the application as filed do not contain these typographical errors.

Moreover, the above mistake may be material, because it may be difficult to determine the full scope of each of claims 12 and 14 from the publication. The omission of the "(j)" in claim 12 deprives claim 12 of the scope it gained by referring back to claim 1(j). Similarly, the recitation of "about Thr-10 to in to about Lys-118" is clearly of different scope than "about Thr-110 to in to about Lys-118". Thus, these errors could affect the scope of provisional rights accorded Applicants under 35 U.S.C. § 154(d) based on the instant publication. Additionally, the mistake in the claims could undermine the strength of the publication as a prior art reference, since a U.S. Patent Application Publication must claim the same invention in order to prevent others from submitting an Affidavit or Declaration of Prior Invention under 37 C.F.R. § 1.131.

Applicants also respectfully request correction of the priority claim so that applicants correct priority claim be reflected in the publication. Applicants have twice attempted, without success, to have the USPTO database corrected to contain the missing portion of the priority claim by requesting corrected filing receipts. Upon speaking with officials in the Office of Initial Patent Examination, Applicants have come to understand that while the priority claim that has been made is valid, the USPTO software is currently unable to accept a priority claim in which an International Patent Application claims priority to another International Patent Application. Accordingly, Applicants would at least like the publication of this patent application to reflect the correct priority claim.

Applicants respectfully request that a corrected publication of the above-listed application be made pursuant to 37 C.F.R. § 1.221(b).

No fee is believed due for this submission. In the event that a fee is required in connection with this submission, please charge the required fee to Deposit Account No.

08-3425. The undersigned would be happy to answer any questions about this request for Corrected Publication.

Dated: August 2, 2004

Respectfully submitted,

By Michele Shannon

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(19) **United States**(12) **Patent Application Publication**
Shi et al.(10) **Pub. No.: US 2004/0115698 A1**(43) **Pub. Date: Jun. 17, 2004**(54) **INTERLEUKIN 17 RECEPTOR-LIKE PROTEIN**(75) **Inventors** Yanggu Shi, Gaithersburg, MD (US);
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ROCKVILLE, MD 20850 (US)**(73) **Assignee:** Human Genome Sciences, Inc., Rockville, MD(21) **Appl. No.:** 10/645,702(22) **Filed:** Aug. 22, 2003**Related U.S. Application Data**

(60) Division of application No. 09/790,844, filed on Mar. 2, 2001, and which is a continuation-in-part of application No. PCT/US00/05759, filed on Mar. 6, 2000, and which is a continuation-in-part of application No. PCT/US99/21048, filed on Sep. 15, 1999, and which is a continuation-in-part of application No. 09/268,311, filed on Mar. 16, 1999, now Pat. No. 6,482,923, and which is a continuation-in-part of application No. 09/154,219, filed on Sep. 16, 1998, now Pat. No. 6,635,443.

Said application No. PCT/US00/05759 is a continuation-in-part of application No. 09/268,311, filed on Mar. 16, 1999, now Pat. No. 6,482,923.

Said application No. PCT/US99/21048 is a continuation-in-part of application No. 09/268,311, filed on Mar. 16, 1999, now Pat. No. 6,482,923, and which is a continuation-in-part of application No. 09/154,219, filed on Sep. 16, 1998, now Pat. No. 6,635,443. Said application No. 09/268,311 is a continuation-in-part of application No. 09/154,219, filed on Sep. 16, 1998, now Pat. No. 6,635,443.

(60) Provisional application No. 60/187,015, filed on Mar. 6, 2000. Provisional application No. 60/059,133, filed on Sep. 17, 1997.

(30) **Foreign Application Priority Data**

Sep. 16, 1998 (WO)..... PCT/US98/19121

Publication Classification(51) **Int. Cl.** C12Q 1/68; C07H 21/04, C07K 14/715(52) **U.S. Cl.** 435/6, 435/69.1; 435/320.1; 435/325; 530/350, 536/23.5(57) **ABSTRACT**

The present invention relates to a novel IL17R1P protein which is a member of the interleukin (IL)-17 receptor family. In particular, isolated nucleic acid molecules are provided encoding the human IL17R1P protein. IL17R1P polypeptides are also provided as are vectors, host cells and recombinant methods for producing the same. The invention further relates to screening methods for identifying agonists and antagonists of IL17R1P activity. Also provided are diagnostic methods for detecting immune system-related disorders and therapeutic methods for treating, diagnosing, detecting, and/or preventing immune system-related disorders.

, and which is a continuation-in-part of application No. PCT/US98/19121 filed Sep. 16, 1998.

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amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 209198.

12. An isolated nucleic acid molecule comprising a polynucleotide which hybridizes under stringent hybridization conditions to a polynucleotide having a nucleotide sequence identical to a nucleotide sequence in (a), (b), (c), (d), (e), (f), (g), (h), (i) or (j) of claim 1 wherein said polynucleotide which hybridizes does not hybridize under stringent hybridization conditions to a polynucleotide having a nucleotide sequence consisting of only A residues or of only T residues.

13. An isolated nucleic acid molecule comprising a polynucleotide which encodes the amino acid sequence of an epitope-bearing portion of a IL17RLP polypeptide having an amino acid sequence in (a), (b), (c), (d), (e), (f), (g), (h) or (i) of claim 1

14. The isolated nucleic acid molecule of claim 13, which encodes an epitope-bearing portion of a IL17RLP polypeptide wherein the amino acid sequence of said portion is selected from the group of sequences in SEQ ID NO:2 consisting of: about Ser-14 to about Val-22, about Cys-24 to about Pro-32, about Ile-41 to about Arg-49, about Thr-89 to about Val-97, about Thr-110 to about Lys-118, about Ala-144 to about Ser-152, about Thr-240 to about Val-248, about Gly-258 to about Thr-267, about Leu-280 to about Gly-288, about Cys-404 to about Glu-412, about Pro-415 to about Ser-423, about Gly-409 to about Glu-417, and about Cys-404 to about Leu-426

15. A method for making a recombinant vector comprising inserting an isolated nucleic acid molecule of claim 1 into a vector.

16. A recombinant vector produced by the method of claim 15

17. A method of making a recombinant host cell comprising introducing the recombinant vector of claim 16 into a host cell.

18. A recombinant host cell produced by the method of claim 17.

19. A recombinant method for producing a IL17RLP polypeptide, comprising culturing the recombinant host cell of claim 18 under conditions such that said polypeptide is expressed and recovering said polypeptide

20. An isolated IL17RLP polypeptide comprising an amino acid sequence at least 95% identical to a sequence selected from the group consisting of:

(a) the amino acid sequence of the full-length IL17RLP polypeptide having the complete amino acid sequence shown in SEQ ID NO:2 (i.e., positions -19 to 407 of SEQ ID NO:2),

(b) the amino acid sequence of the full-length IL17RLP polypeptide having the complete amino acid sequence shown in SEQ ID NO:2 excepting the N-terminal methionine (i.e., positions -18 to 407 of SEQ ID NO:2);

(c) the amino acid sequence of the mature IL17RLP polypeptide having the complete amino acid sequence shown in SEQ ID NO:2 (i.e., positions 1 to 407 of SEQ ID NO:2);

(d) the amino acid sequence of the predicted extracellular domain of the IL17RLP polypeptide having the complete amino acid sequence shown in SEQ ID NO:2 (i.e., positions 1 to 271 of SEQ ID NO:2);

(e) the amino acid sequence of a soluble IL17RLP polypeptide having the predicted extracellular and intracellular domains, but lacking the predicted trans-membrane domain;

(f) the complete amino acid sequence encoded by the cDNA clone contained in the ATCC Deposit No. 209198;

(g) the complete amino acid sequence excepting the N-terminal methionine encoded by the cDNA clone contained in the ATCC Deposit No. 209198,

(h) the complete amino acid sequence of the mature IL17RLP encoded by the cDNA clone contained in the ATCC Deposit No. 209198, and,

(i) the complete amino acid sequence of the extracellular domain of the IL17RLP encoded by the cDNA clone contained in the ATCC Deposit No. 209198

21. An isolated polypeptide comprising an epitope-bearing portion of the IL17RLP protein, wherein said portion is selected from the group consisting of:

(a) a polypeptide comprising amino acid residues from about Ser-14 to about Val-22 in SEQ ID NO:2,

(b) a polypeptide comprising amino acid residues from about Cys-24 to about Pro-32 in SEQ ID NO:2,

(c) a polypeptide comprising amino acid residues from about Ile-41 to about Arg-49 in SEQ ID NO:2,

(d) a polypeptide comprising amino acid residues from about Thr-89 to about Val-97 in SEQ ID NO:2,

(e) a polypeptide comprising amino acid residues from about Thr-110 to about Lys-118 in SEQ ID NO:2,

(f) a polypeptide comprising amino acid residues from about Ala-144 to about Ser-152 in SEQ ID NO:2,

(g) a polypeptide comprising amino acid residues from about Thr-240 to about Val-248 in SEQ ID NO:2,

(h) a polypeptide comprising amino acid residues from about Gly-258 to about Thr-267 in SEQ ID NO:2,

(i) a polypeptide comprising amino acid residues from about Leu-280 to about Gly-288 in SEQ ID NO:2,

(j) a polypeptide comprising amino acid residues from about Cys-404 to about Glu-412 in SEQ ID NO:2,

(k) a polypeptide comprising amino acid residues from about Pro-415 to about Ser-423 in SEQ ID NO:2,

(l) a polypeptide comprising amino acid residues from about Gly-409 to about Glu-417 in SEQ ID NO:2, and

(m) a polypeptide comprising amino acid residues from about Cys-404 to about Leu-426

22. An isolated antibody that binds specifically to a IL17RLP polypeptide of claim 20.

23. An isolated nucleic acid molecule comprising a polynucleotide having a sequence at least 95% identical to a sequence selected from the group consisting of:

(a) the nucleotide sequence of SEQ ID NO:4;

(b) the nucleotide sequence of SEQ ID NO:5,

(c) the nucleotide sequence of a portion of the sequence shown in FIGS. 1A, 1B, and 1C (SEQ ID NO:1)

Thr-110

CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. § 1.8

1. Fax Cover Sheet (1 page);
2. Request for Corrected Publication Under 37 C.F.R. § 1.221(b) Due to Material Office Mistake (3 pages);
3. Marked up copy of the cover sheet and page 114 of the description from US Patent Application Publication No. 2004/0115698 (2 pages); and
4. Certificate of Transmission Under 37 C.F.R. § 1.8 (1 page).

I hereby certify that the above-listed correspondence is being facsimile transmitted to the United States Patent and Trademark Office on August 2, 2004.



Brenda Allen

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Rockville, MD 20850****Phone: 301-309-8504****Fax: 301-309-8439****FAX COVER SHEET****DATE:** August 2, 2004**TOTAL NUMBER OF PAGES:** 7**TO: Office of Pre-Grant Publications
United States Patent & Trademark Office****FAX NO.:** (703) 305-8568**PHONE NO.:** (703) 605-4285**FROM:** Michele Shannon (Reg. No. 47,075)**RE:** Application of: Shi et al.
Application No. 10/645,702
Publication No.: 2004/0115698-A1
Title: Interleukin 17 Receptor-Like Protein**Docket No.** PF398P2D1
Filed: August 22, 2003
Published: June 17, 2004**COMMENTS:**

Please see the attached Request for Corrected Publication Under 37 C.F.R.
§ 1.221(b) Due to Material Office Mistake.

If you experience any difficulty receiving this transmission,
please contact Michele Shannon at (301) 354-3930.